Power to the People? Opportunities and Challenges for Participatory AI

Abstract

Participatory approaches to artificial intelligence (AI) and machine learning (ML) are gaining momentum: the increased attention comes partly with the view that participation opens the gateway to an inclusive, equitable, robust, responsible and trustworthy AI. Among other benefits, participatory approaches are essential to understanding and adequately representing the needs, desires and perspectives of historically marginalized communities. However, there currently exists lack of clarity on what meaningful participation entails and what it is expected to do. In this paper we first review participatory approaches as situated in historical contexts as well as participatory methods and practices within the AI and ML pipeline. We then introduce three case studies in participatory AI. Participation holds the potential for beneficial, emancipatory and empowering technology design, development and deployment while also being at risk for concerns such as cooptation and conflation with other activities. We lay out these limitations and concerns and argue that as participatory AI/ML becomes in vogue, a contextual and nuanced understanding of the term as well as consideration of who the primary beneficiaries of participatory activities ought to be constitute crucial factors to realizing the benefits and opportunities that participation brings.